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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,932	12/12/2003	Chi Fai Ho	IPLN.P0001C	2247
Peter Tong 1807 Limetree Lane Mountain View, CA 94040				
7590 01/27/2010				
EXAMINER				
LEIVA, FRANK M				
ART UNIT		PAPER NUMBER		
3714				
MAIL DATE		DELIVERY MODE		
01/27/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/734,932

**Applicant(s)**

HO ET AL.

**Examiner**

FRANK M. LEIVA

**Art Unit**

3714

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 September 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 47-51, 53, 54, 56-58, 60, 62-64, 66 and 68 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 47-51, 53, 54, 56-58, 60, 62-64, 66 and 68 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2009 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-940)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### Acknowledgements

1. The examiner acknowledges amendments to claims 47-50, 54, 56-58, 60, 62-64, 66 and 68, and newly withdrawn claim 55 in applicant's submission filed 28 September 2009.

### Response to Arguments

2. Applicant's arguments filed 28 September 2009 have been fully considered but they are not persuasive for the following reasons.
3. Regarding the argument on page 7 of applicant's remarks regarding the 35 USC § 112 2<sup>nd</sup> Paragraph rejection; *"In applicants' claimed invention, the at least two rules help determine which additional materials to present to the user. One of ordinary skill in the art would have understood the meaning of the term particularly in view of the specification, which has numerous examples on "rules";"* The examiner contends that the word "rule" has not being sufficiently defined in the specification to limit the broad nature of the word "rule". The word rule must be accompanied by the type of relationship attached to the type of rule in the claim, since only examples not limiting the broad term are specified in the specification.
4. Regarding the argument on page 10 of applicant's remarks; *"The issue is how a computing system is designed to react. It seems that in MC&S, its system is designed so that only one rule is applicable to each situation. So the different rules in MC&S do not have any conflicts. Take its Table 2, which Applicants have reproduced below."* The examiner points to Table 2 sixth space under Motion Decisions, *"Mark the skill for review..."* indicating that the next material to view is also dependent on other circumstances or rules such as (is there a review schedule ahead), and also the rules for determining the performance levels have different rules.  
As applied below the examiner has pointed out that there are several algorithms all link to select the user's next viewing materials, such as a decision algorithm, a motion algorithm and a success probability algorithm.

5. Regarding the argument on page 11 of applicant's remarks; *"In the claimed invention, multiple rules can be applicable to a situation. As an illustration, take the following two rules, designated R1 and R2:*

*(R1) if x is 1 and y is 1 then f(x and y) is 2*

*(R2) if x is 1 and y is 1 then f(x and y) is 3*

*Assume x is 1 and y is 1. A computing system can go through the rules sequentially and apply them one after the other. Such an approach may not be optimum.*

*Another approach is to check both rules to see which one is applicable. In this case, both R1 and R2 are applicable, and are applied concurrently. With the results from both R1 and R2 being different, the two rules are in conflict, and the computing system needs to resolve the conflict."*

The situations to which the claimed invention can be applied are not within the scope of the claimed invention, and only the claimed invention is reviewed on the merits.

6. Regarding the argument on page 11 of applicant's remarks; *"Moreover, in the claims as amended, Applicants further claim that to resolve the conflict, another rule is generated. With MC&S not teaching or suggesting "with the at least two rules having a conflict in view of an assessment of the user", MC&S could not have taught or suggested "resolving the conflict by generating another rule to help determine the additional materials to present to the user".* The examiner points to the amendment as being new matter and also reviewed on the merits below making the argument moot in view of new grounds of rejection.

7. Regarding the argument on page 12 of applicant's remarks regarding claim 49; *"Regarding claim 49, it includes the limitations of transmitting to the presentation device via a network that includes a private network and a public network. As support for its rejection, the Office Action cited the first paragraph on page 162 of M a s , which is reproduced below: As discussed in 'The Teacher's Role' in this handbook, Math Concepts and Skills can be modified to meet the needs of individual students or school requirements.*

*The modifications are achieved by using the Management System to change the default values of the enrollment options for the course. This appendix shows the enrollment options and default values as they appear on the Modify Course menus in the Management System.*

*Nowhere can one find in the paragraph any mentioning of having at least some of the accessed materials transmitted via a network to a presentation device to be presented to the user, let alone*

*the network including a private and a public network."* It is important to realize that the school computer network is well known to have the private system for faculty (Management system) and the public system for the students (users) to work with. The given paragraph is an illustration that MC&S has a private (management) system and thus there is a public or all access for the users to receive the lectures. As for networks, the Computer Curriculum system is meant to be used with a plurality of users and Teachers and it is obvious to be operated on any number of intranet or internet networks.

8. Regarding the argument on page 12 of applicant's remarks regarding claim 50, 58 and 64; upon review of the amendments the argument is moot in view of new grounds of rejection.

9. Regarding the argument on page 15 of applicant's remarks regarding claim 51; *"Regarding claim 51, the Office Action cited Table 2 in MC&S as support for its rejection, arguing that in MC&S, the " system will no longer repeat subject after all available tries have been presented." As described above, there can be millions of different types of tries one can make, and Table 2 pertains to a specific decision process in view of student performance. But Table 2 does not teach or suggest additional materials to be presented to the user being determined depending on a time elapsed from when certain materials have been presented to the user, let alone materials being able to be repeated, with such materials no longer selected if the time elapsed is more than a predetermined duration of time."* The examiner points that given that each lesson has a predetermined amount of time given; that to say that all tries are exhausted is to also say that the allotted time given to learn the subject has elapse, and thus inherent in the disclosure.

### ***Drawings***

10. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the computer device structure including the storage device, and the process of resolution of the conflict other than to say "resolving a conflict" must be shown or the feature(s) canceled from the

claim(s). The applicant has entered in remarks that certain rules and conflict with the rules may occur in a specific manner, and if so added to the next claim amendment, a drawing of such would be required also. No new matter should be entered. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112 1<sup>st</sup> Paragraph***

11. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

12. Claims 47, 57 and 63 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application

was filed, had possession of the claimed invention. Claims 47, 57 and 63 all state "resolving the conflict by generating another rule", which is not supported by the specification and considered new matter.

***Claim Rejections - 35 USC § 112 2<sup>nd</sup> Paragraph***

- 13.** The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**14. Claims 47-51, 53-54, 56-58, 60, 62-64, 66 and 68** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**15.** Independent claim 47, 57 and 63 has mention of "at least two rules" without a descriptive mentioning of what they are, thus making the claims indefinite. It is unclear as to what and how the at least two rules "having a conflict in view of an assessment of the user". In addition the rules are not defined in the specification just given some examples and thus not limiting the broad nature of the term "rules". It is thus impossible to have a proper understanding of the invention as claimed and provide appropriate interpretations therefor.

***Claim Rejections - 35 USC § 103***

- 16.** The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**17. Claims 47-51, 53-54, 56-58, 60, 62-64, 66 and 68 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Success Maker Math Concepts and Skills, Teacher's Handbook, Curriculum Corporation, February 1993 hereinafter MC&S.**

**18. Regarding claims 47, 57 and 63;** MC&S discloses a computer-implemented method and readable memory for helping a user learn, the method comprising:

(a) allowing the user to access materials related to a subject to be presented via a presentation device, to help the user learn, (page 7);

(b) retrieving, from a storage device, at least two rules to help determine which additional materials to present to the user;

(c.) determining, based on at least two rules (number of exercises the students has correctly answered, the number of exercises incorrectly answered, or the number of exercises answered using the help resources) (p. 12; ¶ 4), retrieved from the storage device, the additional materials to present to the user, after the materials accessed by the user at (a) have been presented to the user;

selecting least some of the materials accessed by the user at (a) for presentation to the user for a further time so that the user's memory on the materials can be refreshed, (Page 25; ¶ 3), receive review exercises in the next session.

wherein (c.) includes determining, by a computing device, whether the at least two rules have a conflict in view of an assessment of the user, and, if there is a conflict, resolving the conflict by generating another rule to help determine the additional materials to present to the user, the computing device being coupled to the storage device, (page 7; Presentation of Strands, page 1; ¶ 4: decision algorithm, page 17; ¶ 1: motion algorithm) the Presentation of Strands where materials are presented according to the students grade level which is dependent on the difficulty rating rules of page 12; ¶ 4, discussed above.

MC&S fails to disclose a conflict upon the rules that governed the selection of the next material of study because computer algorithms cannot encounter conflicting



parameters; there is always a second set of rules (of higher priorities), to follow if the program encounters an impasse. "If then else" statements always have a way out and conflicting data always has another direction to take as is in the applicant's disclosure.

**19. Regarding claim 48;** MC&S discloses wherein at (d) the selecting of at least some of the materials accessed by the user at (a) for presentation to the user for the further time occurs after the additional materials determined at (c.) have been presented to the user, (page 25), "Sam will receive review exercises in the next session".

**20. Regarding claim 49;** MC&S discloses wherein the method further comprises having at least some of the accessed materials transmitted via a network to the presentation device to be presented to the user, and wherein the network includes a private network and a public network, (page162; ¶ 1), computer system, management system.

**21. Regarding claim 51;** MC&S discloses wherein the at least some of the materials accessed by the user at (a) can be repeatedly selected for presentation to the user, but if the time elapsed is more than a predetermined duration of time, the at least some of the materials accessed by the user at (a) are no longer selected, (table 2), system will no longer repeat subject after all available tries have been presented.

**22. Regarding claim 53;** MC&S discloses wherein the at least some of the materials accessed by the user at (a) can be repeatedly selected for presentation to the user, (page 30 and table 2).

**23. Regarding claims 54, 60 and 68;** MC&S discloses wherein the additional materials determined to be presented to the user at (c.), also relate to the subject, (table 1), shows the lessons being of the same subject (math).

**24. Regarding claims 56, 62 and 66;** MC&S discloses wherein resolving the conflict between the at least two rules involves favoring one of the at least two rules over another one of the at least two rules, (table 2), showing a set of rules with a hierarchy.

**25. Regarding claims 50, 58 and 64;** MC&S discloses all the limitations of claims 47, 57 and 63 as applied above, and MC&S further discloses wherein the at least some of the materials accessed by the user at (a) are selected at (d) for presentation to the user for the further time depending on a time elapsed from when the user accesses the materials at (a), (page 8: timing of the review), the delayed review is presented after the delay has elapse, that is dependent of the time the user last viewed the material and the amount of delay.

#### ***Examiner's Note***

**26.** Examiner has cited paragraphs and figures in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

#### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRANK M. LEIVA whose telephone number is (571)272-2460. The examiner can normally be reached on M-Th 9:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter D. Vo can be reached on (571) 272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

FML

01/21/2010

/Peter D. Vo/

Supervisory Patent Examiner, Art Unit 3714